

# GRADING & DRAINAGE PLANS - ON SITE

## GRADING AND DRAINAGE NOTES

1. A grading permit from the building division is required. All grading shall comply with the requirements of the City of Milpitas grading municipal code, these plans, special instruction on the permit, and the preliminary soils report date \_\_\_\_\_ and all subsequent addendums.
2. Source of topography is \_\_\_\_\_ by dated \_\_\_\_\_.
3. A pre-grading meeting at the site is required among the City inspector, the civil engineer, the soils engineer and the grading contractor.
4. Hours of operation are 7:00 a.m. to 7:00 p.m. – Weekdays and weekend, except holidays.
5. Separate permits shall be required for any improvement work in the public right-of-way.
6. Construction material and equipment shall not occupy any portion of the public right-of-way, such as street, alley or public sidewalk at any time. Temporary use of public right-of-way, whenever requested, should be reviewed and approved by the City Engineer.
7. Repair or replace all existing damaged or altered public improvements as required by the City Engineer.
8. The Contractor is responsible for the preservation and or perpetuation of all existing monuments and stakes within the Contractor's area of work. The Contractor shall not disturb or remove any monuments or stakes without the permission of the City Engineer, and the shall bear the expense of resetting any monuments or stakes which may be disturbed or removed with or without permission. The Contractor shall provide a minimum of 15 Working days notice to the City Engineer prior to disturbance or removal of existing monuments or stakes. The Contractor shall utilize the services of a California Licensed Land Surveyor to reset all disturbed or removed monuments and stakes or provide witness monuments, and file the required documentation with the County Surveyor pursuant to the Business and Professions Code Section 8771.
9. Prior to taking water from a City fire hydrant, the contractor shall make arrangements with the City's Finance Department to obtain a fire hydrant water meter. Meter location may not be altered without Utility Services' approval.
10. It shall be the contractor's responsibility to verify the location of all utilities or structures above or below ground, shown or not shown on these plans. The location, depth and existence of underground improvements are shown in their approximate positions based upon information available to the engineer. The contractor shall excavate inspection holes "pot holes" and determine the location and depth of all underground structures and utilities that are in the vicinity of and/or may be affected by the proposed improvement work prior to any construction work which could damage or conflict with said structures and/or utilities.
11. Strict adherence to dust control requirements shall be enforced and adjacent streets are to be cleaned daily of all dirt and debris that is the result of this operation.
12. Separate permits from the Building Division shall be required for all walls.
13. An approved precise grading plan will be required prior to a building permit being issued.
15. The design civil engineer/soils engineer/engineering geologist of record shall exercise sufficient control during grading and construction to insure compliance with the plans, specifications, and code requirements within his purview. The engineers shall submit Acknowledgment Concerning Employment Form to the City prior to the issuance of a grading permit.
16. Revisions to the plans are to be submitted to the City Engineer for review and approval.
17. The civil engineer shall submit written certification of completion of rough grading in accordance with the approved grading plan and certification of building pad elevation prior to issuance of the building permit. Pad elevation grading tolerance shall not exceed  $\pm 0.10'$ .
18. An "as-built" grading plan shall be submitted at the completion of work.
19. All grading shall be performed under the supervision of the soils engineer who shall certify that all fill has been properly placed and who shall submit a final compaction report for all fills over 1' deep.
20. The soils engineer shall, after clearing and prior to the placement of fill in canyons, inspect each canyon for areas of adverse stability and to determine the presence or absence of subsurface water or spring flow. If needed, drains will be designed and constructed prior to the placement of fill in each respective canyon.
21. Fill areas shall be cleaned of all vegetation and debris, scarified to a minimum depth of 12 inches and inspected by the soils engineer prior to the placing of fill.
22. All deleterious materials, i.e., lumber, logs, brush, or any other organic materials or rubbish shall be removed from all areas to receive compacted fill.
23. Unsuitable materials, such as topsoil, weathered bedrock, etc., shall be removed as required by soils engineer (and engineering geologist, where employed) from all areas to receive compacted fill or drainage structure.
24. Fills shall be benched into competent material.
25. Where support or buttressing of cut and natural slopes is determined to be necessary by the soils engineer, the soils engineer shall submit design, locations and calculations to the City Engineer prior to construction. The soils engineer will inspect and control the construction of the buttressing and certify to the stability of the slope and adjacent structures upon completion.
26. All cut slopes shall be investigated, both during and after grading by the soils engineering, to determine if any slope stability problem exists. Should excavation disclose any geological hazards, the soils engineer shall recommend necessary treatment to the City Engineer for approval. All approvals to be granted on the basis of detailed geological mapping and written field memo.
27. Stability calculations with a safety factor of at least one and five tenths (1.5) shall be submitted by a soils engineer to the Engineering Division for cut and fill slopes steeper than 2 to 1 or over 30' in vertical height.
28. Maximum cut and fill slopes = 2 to 1.
29. Provide 4' wide by 1' high berm or equivalent along the top of all fill slopes over 5' high, except where shown otherwise on plans.
30. All slopes shall be vegetated/planted for erosion control.
31. Terrace drains, interceptor drains and down drains shall be constructed of 4" P.C.C. (or gunite) reinforced with 6" x 6" – 2 1.4 x 1.4 W.W.M. rebar shall be grade 60 billet steel conforming to ASTM A615.
33. Ground shall be pre-wetted prior to the placement of concrete. Moisture loss retardant shall be used when required by the soils engineer/City Engineer.
34. City approval of plans does not relieve the developer from his/her responsibility to correct errors and/or omissions discovered during construction. Any plan revisions shall be promptly submitted to the City engineer for approval.
35. All known well locations on the site have been included and such wells shall be maintained or abandoned according to current regulations administered by the Santa Clara Valley Water District. Call (408) 265-2600 extension 382 to arrange for district observations of all well abandonments.

PROJECT NAME:\_\_\_\_\_

BUILDING PERMIT NO. B-GR200X - \_\_\_\_\_

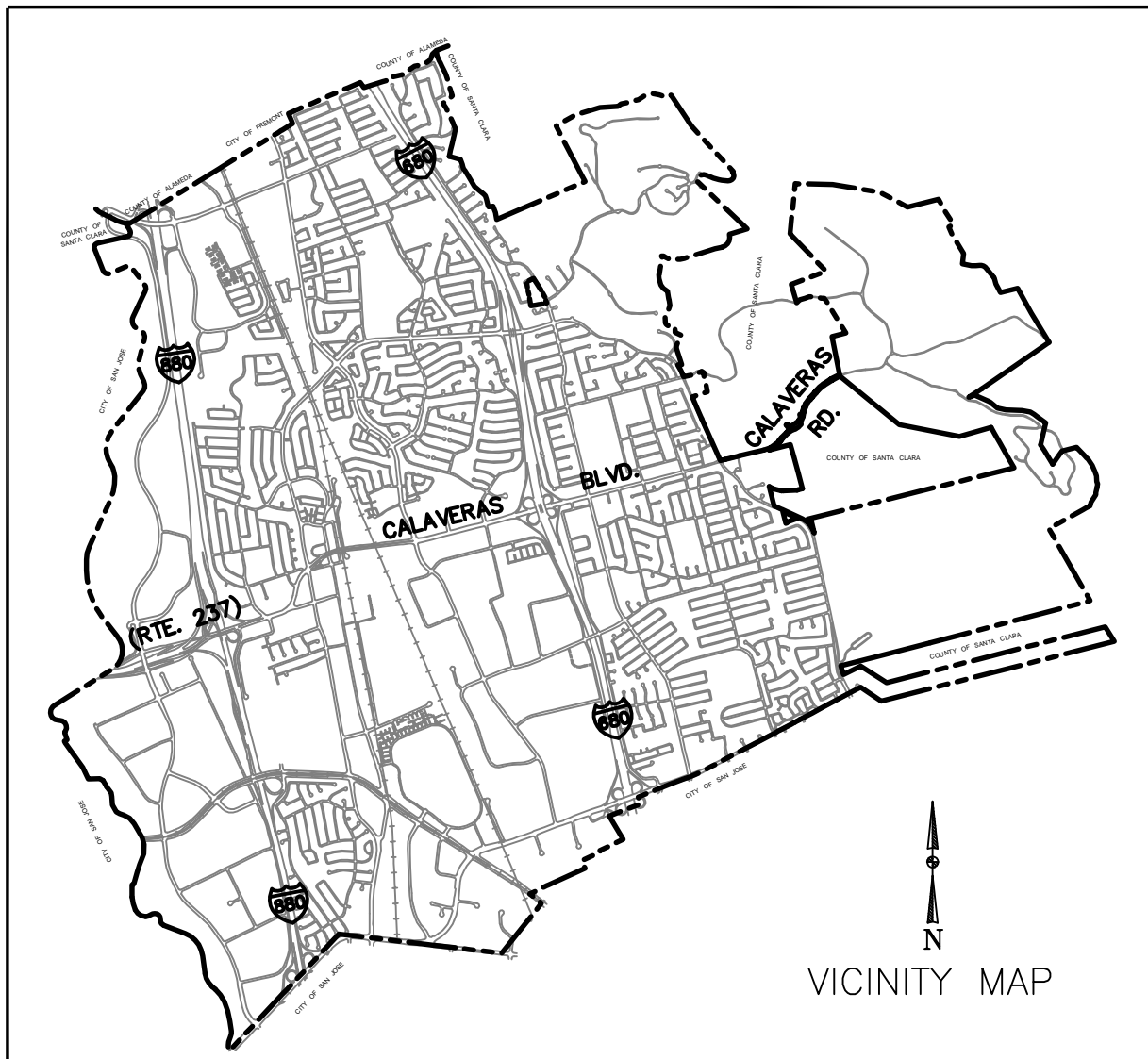
ASSESSORS PARCEL NO. \_\_\_\_\_

LOT NO. \_\_\_\_\_, PARCEL MAP/TRACT NO. \_\_\_\_\_BK \_\_\_\_\_PG \_\_\_\_\_



## CITY OF MILPITAS

### ENGINEERING DIVISION



## ABBREVIATIONS

AB	AGGREGATE BASE	MAX	MAXIMUM
AC	ASPHALT CONCRETE	MH	MANHOLE
BC	BEGIN CURVE	MIN	MINIMUM
BCR	BEGIN CURB RETURN	OG	ORIGINAL GRADE
BFE	BASE FLOOD ELEVATION	PAD	PAD ELEVATION
CL	CLASS	PB	PULL BOX
DIA	DIAMETER	PCC	PORTLAND CEMENT CONCRETE
DWY	DRIVEWAY	PVC	POLYVINYL CHLORIDE
EC	END CURVE	R	RADIUS
ECR	END CURB RETURN	RCP	REINFORCED CONCRETE PIPE
ED	EDGE DRAIN	R/W	RIGHT-OF-WAY
EX	EXISTING	STA	STATION
FC	FACE OF CURB	SW	SIDEWALK
FG	FINISH GRADE	TC	TOP OF CURB
FH	FIRE HYDRANT	TEMP	TEMPORARY
INV	INVERT	TYP	TYPICAL
IRR	IRRIGATION		

36. Any abandoned underground pipes exposed during construction shall be removed or adequately plugged, or a combination of both in accordance with the requirements of the City of Milpitas Building Division.

37. If human remains are discovered during the construction, unless the coroner has notified the permittee in writing that the remains discovered have been determined not to be native American, the permittee shall notify all persons on the city's native American notification list of such discovery. Such notification shall be sent by first class U.S. mail within seven (7) days of the date on which the permittee notified the coroner and shall state that the coroner has been notified in accordance with California state law.

38. The contractor shall advise the owner of appropriate maintenance procedures of the drainage systems.

39. All exposed or disturbed soil surfaces shall be watered as necessary, but not less than twice daily to control dust. Areas of digging and grading operations shall be consistently watered to control dust. Grading or other dust-producing activities shall be suspended during periods of high wind when dust is readily visible in the air. Stockpiles of soil, debris, sand, or other dust-producing materials shall be watered or covered. The construction area and the surrounding streets shall be swept (no water) as necessary, but not less than twice daily.

COMCAST CABLE TELEVISION

PACIFIC GAS & ELECTRIC

SANTA CLARA VALLEY WATER DISTRICT

SBC TELEPHONE

1-800-266-2278

1-800-743-5000

(408) 265-2600

1-800-310-2355

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## LEGEND

EXISTING	PROPOSED
SIDEWALK, CURB AND GUTTER	
CENTER LINE	
PROPERTY LINE	
EDGE OF PAVEMENT	
PCC OR AC REMOVAL	
STANDARD CITY MONUMENT	
BENCH MARK	
MANHOLE	
STORM DRAIN INLET	
WATER METER	
VALVE	
FIRE HYDRANT	
STREET LIGHT	
POWER POLE	
PULL BOX	
CABLE TELEVISION LINE	
ELECTRICAL LINE	
IRRIGATION LINE	
NATURAL GAS LINE	
OVERHEAD LINE	
SANITARY SEWER LINE	
STORM DRAIN LINE	
TELEPHONE LINE	
WATER LINE	
TRAFFIC SIGNAL CONDUIT	
LIGHTING CONDUIT	
ROADSIDE SIGN & SIGN CODE	
FENCE	
TREE/SHRUB	

## BENCHMARK

ELEVATION:  
LOCATION:  
DESCRIPTION:

**SOILS ENGINEER:** These plans have reviewed and found to be in substantial conformance with the intent and purpose of the geotechnical exploration report dated \_\_\_\_\_, prepared by \_\_\_\_\_

(Name) \_\_\_\_\_ Date \_\_\_\_\_

Firm: \_\_\_\_\_ SEAL

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

**CIVIL ENGINEER:** I hereby declare that I am the engineer of work for this project, that I have exercised responsible charge over the design of the project as defined in section 6703 of the business and professions codes, and that the design is consistent with current standards. The design shown hereon is necessary and reasonable and does not restrict any historic drainage flows from adjacent properties nor increase drainage to adjacent properties. The design includes principles and techniques to reduce quantity and improve the quality of storm water runoff, as required by NPDES. I understand that the check of project drawings and specifications by the City of Milpitas is confined to a review only and does not relieve me, as engineer of work, of my responsibilities for project design.

SIGNATURE \_\_\_\_\_ P.E. \_\_\_\_\_ SEAL

Firm: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

### RECOMMENDED FOR APPROVAL:

Planning \_\_\_\_\_ Date \_\_\_\_\_

Fire \_\_\_\_\_ Date \_\_\_\_\_

Building \_\_\_\_\_ Date \_\_\_\_\_

### Record Drawings

To be completed prior to acceptance of work by the City

Signature & Seal \_\_\_\_\_ Date \_\_\_\_\_

P.E. No. \_\_\_\_\_ Exp. \_\_\_\_\_

Public Works Inspector: \_\_\_\_\_

### Revisions

Num.	Date	By	Description	City	Engr.	Aprv.	Date

### CITY OF MILPITAS ENGINEERING DIVISION

Approved: \_\_\_\_\_ Project No. \_\_\_\_\_

City Engineer \_\_\_\_\_ Date \_\_\_\_\_ File No. \_\_\_\_\_

Any changes to this plan shall be approved by the City Engineer

Sheet \_\_\_\_ of \_\_\_\_